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(FILE 'HOME' ENTERED AT 10:08:29 ON 11 MAR 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT  
10:08:52 ON 11 MAR 2005

L1 3460 S (ANTIGEN BINDING SITE)  
L2 0 S (COMPLEMENTARY DETERMINING SEG?)  
L3 2 S (COMPLEMENTARY DETERMINING SEG?)  
L4 0 S L1 AND L2  
L5 2376516 S ANTIBOD?  
L6 93 S L5 AND (180 DEGREE)  
L7 13825 S L5 AND (HYDROPHOBIC?)  
L8 3 S L6 AND L7  
L9 3 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)

=>

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:184630 CAPLUS

ED Entered STN: 11 Mar 2003

TI A geomorphic classification of **antibody** binding sites

AU Houk, K. N.; Lee, Michelle; Schallhorn, Julie; Sugimoto, Keiki; Leach, Andrew G.

CS Department of Chemistry and Biochemistry, University of California, Los Angeles, CA, 90095-1569, USA

SO Abstracts of Papers, 225th ACS National Meeting, New Orleans, LA, United States, March 23-27, 2003 (2003), ORGN-135 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69DSA4

DT Conference; Meeting Abstract

LA English

AB The topogs. of **antibody** binding sites have been classified in analogy to familiar geomorphic features of our surroundings on earth. The 265 available **antibody** crystal structures from the Protein Data Bank were analyzed according to this scheme. The binding site topog. classification is a modified scheme based on previous schemes but using readily recognizable geomorphic descriptors. There are five categories: cave and crater (mostly hapten binders), canyon and valley (mostly peptide and carbohydrate binders) and plain (mostly protein binders). Known catalytic **antibody** structures are mainly of the cave type, providing a deep **hydrophobic** pocket for binding of organic mol. substrates and transition states. The anal. was carried out at the UCLA Visualization Portal, where the 3D structures were analyzed visually by manipulation and assessment of the surface renderings of each crystal structure with a 3D projector in a **180 degrees** concave viewing facility.

AN 2003:660251 CAPLUS  
 DN 139:281226  
 ED Entered STN: 25 Aug 2003  
 TI Preparation of core/shell type composite particles of hydroxyapatite and liposome  
 IN Chu, Maoquan; Xu, Yuhong; Liu, Shupeng  
 PA Shanghai Jiaotong University, Peop. Rep. China  
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.  
 CODEN: CNXXEV  
 DT Patent  
 LA Chinese  
 IC ICM A61K047-02  
 ICS A61K047-46; B82B001-00; A61L027-12; A61P035-00  
 CC 63-6 (Pharmaceuticals)  
 FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | CN 1374132     | A    | 20021016 | CN 2002-111131  | 20020322 |
| PRAI | CN 2002-111131 |      | 20020322 |                 |          |

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES             |
|------------|-------|--|
| CN 1374132 | ICM   | A61K047-02                                     |
|            | ICS   | A61K047-46; B82B001-00; A61L027-12; A61P035-00 |

AB The core/shell type composite particle used as drug carrier is prepared by preparing liposome membrane from phospholipid, lysolipid, glycolipid, sterol, cationic lipid, detergent, and/or amphoteric polymer via film coating method; encapsulating one or more of ions solution (pH 0-14) or hydroxyapatite-forming substance  $\text{Ca}_3(\text{PO}_4)_2$ ,  $\text{CaO}$ ,  $\text{Ca}_4\text{P}_2\text{O}_9$ ,  $\text{NaOH}$ , and/or  $\text{NH}_4\text{OH}$  at 0-100°, and/or freezing at 0-(-180).

**degree.** and melting at 0-100° 0-20 times; removing the un-encapsulated ions or hydroxyapatite-forming substance via column chromatog.; and allowing to react with another kinds of ions. The core/shell type composite particle may be modified with hydrophilic or **hydrophobic** polymer, ligand, **antibody**, cytokine, peptide, and/or nuclei acid during film-formation process or after formation of the core/shell type composite particle.

ST composite particle liposome hydroxyapatite drug carrier

IT Polymer morphology

(core-shell; preparation of core/shell type composite particles of hydroxyapatite and liposome)

IT Drug delivery systems

(liposomes; preparation of core/shell type composite particles of hydroxyapatite and liposome)

IT Lime (chemical)

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(preparation of core/shell type composite particles of hydroxyapatite and liposome)

IT 1306-06-5, Hydroxyapatite 1310-58-3, Potassium hydroxide, biological studies 1310-73-2, Sodium hydroxide, biological studies 7664-41-7, Ammonia, biological studies 7757-93-9, Calcium hydrogen phosphate 7758-87-4, Calcium phosphate 7790-76-3, Calcium pyrophosphate 10043-52-4, Calcium chloride, biological studies 10124-37-5, Calcium nitrate

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(preparation of core/shell type composite particles of hydroxyapatite and liposome)

AN 1997:385684 CAPLUS  
 DN 127:9125  
 ED Entered STN: 21 Jun 1997  
 TI Thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers  
 IN Cha, Younsik; Choi, Young Kweon; Bae, You Han  
 PA Macromed, Inc., USA  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K009-10  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 35, 38

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9715287  | A1   | 19970501 | WO 1996-US17023 | 19961025 |
|      | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
|      | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI  |      |          |                 |          |
|      | US 5702717  | A    | 19971230 | US 1995-548185  | 19951025 |
|      | ZA 9608944  | A    | 19970721 | ZA 1996-8944    | 19961024 |
|      | CA 2235413  | AA   | 19970501 | CA 1996-2235413 | 19961025 |
|      | AU 9675200  | A1   | 19970515 | AU 1996-75200   | 19961025 |
|      | EP 863745   | A1   | 19980916 | EP 1996-937727  | 19961025 |
|      | EP 863745   | B1   | 20040526 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |      |          |                 |          |
|      | JP 11513985   | T2   | 19991130 | JP 1996-516762  | 19961025 |
|      | AT 267584   | E    | 20040615 | AT 1996-937727  | 19961025 |
| PRAI | US 1995-548185  | A    | 19951025 |                 |          |
|      | WO 1996-US17023   | W    | 19961025 |                 |          |

## CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES  |
|------------|-------|---|
| WO 9715287 | ICM   | A61K009-10  |
| WO 9715287 | ECLA  | A61K009/00M4; A61K038/18G; A61K038/20B; A61K038/22G; A61K038/28; A61K047/34 |
| US 5702717 | ECLA  | A61K009/00M4; A61K038/22G; A61K038/28; A61K047/34; A61K038/18G; A61K038/20B |

AB A system and method for the parenteral delivery of a drug in a biodegradable polymeric matrix to a warm blood animal as a liquid with the resultant formation of a gel depot for the controlled release of the drug. The system comprises an injectable biodegradable block copolymeric drug delivery liquid having reverse thermal gelation properties. The liquid is an aqueous solution having dissolved or dispersed therein an effective amount of a drug intimately contained in a biodegradable block copolymer matrix. The copolymer has a reverse gelation temperature below the body temperature of the animal

to which it is administered and is made of of (1) a **hydrophobic** A polymer block comprising a member selected from the group consisting of poly( $\alpha$ -hydroxy acids) and poly(ethylene carbonates) and (2) a **hydrophobic** B polymer block comprising a polyethylene glycol. The liquid is stored below the reverse gelation temperature and is parenterally administered into the animal by i.m., i.p., s.c. or similar injection. Malic acid was polymerized with D,L-lactic acid to form a carboxyl group-containing oligomeric polyester. To melt of this carboxylated copolymer

was added PEG which was predried under high vacuum at an elevated temperature and then further heated at **180.degree.** under a nitrogen atmospheric for 15 h to obtain the block copolymer of the invention. The above block copolymer was dissolved in water and mixed with a solution of basic, heat stable platelet-derived growth factor. The drug was incorporated into the copolymer by a simultaneous dispersion and precipitation process. The precipitated copolymer containing drug particles was collected

and

freeze dried.

ST thermosensitive biodegradable polymer polyetherester block copolymer; platelet derived growth factor parenteral pharmaceutical; malate lactide PEG block copolymer prepn

IT **Antibodies**

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(monoclonal; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Drug delivery systems

(parenterals; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Polyoxyalkylenes, biological studies

Polyoxyalkylenes, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polyester-, block; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Polyesters, biological studies

Polyesters, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(polyoxyalkylene-, block; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Antitumor agents

Enkephalins

Interleukin 2

Platelet-derived growth factors

Tumor necrosis factors

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Interferons

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\alpha$ ; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Interferons

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\beta$ ; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT Interferons

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

( $\gamma$ ; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT 190191-84-5P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(multiblock; thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT 113497-67-9P 115358-21-9P 149479-29-8P 190191-83-4P 190191-85-6DP,  
diol derivs. 190191-86-7P 190191-87-8P 190191-88-9P 190191-89-0P  
190191-90-3P 190191-91-4P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(thermosensitive biodegradable polymers based on poly(ether-ester) block copolymers)

IT 50-56-6, Oxytocin, biological studies 50-76-0, Actinomycin d 51-21-8,  
5-Fluorouracil 58-82-2, Bradykinin 59-05-2, Methotrexate 1066-17-7,  
Colistin 1393-25-5, Secretin 1404-00-8, Mitomycin 1405-87-4,  
Bacitracin 1405-97-6, Gramicidin 1406-11-7, Polymixin 1407-47-2,  
Angiotensin 1947-37-1, Tetragastrin 5534-95-2, Pentagastrin  
8011-61-8, Tyrocidine 8049-62-5, Zinc insulin 9002-60-2,  
Adrenocorticotrophic hormone, biological studies 9002-62-4, Prolactin,  
biological studies 9002-72-6, Growth hormone 9002-76-0, Gastrin  
9007-12-9, Calcitonin 9007-92-5, Glucagon, biological studies  
9015-94-5, Renin, biological studies 9034-39-3, Growth hormone releasing  
hormone 9034-40-6, Luliberin 9061-61-4, Nerve growth factor  
11000-17-2, Vasopressin 11056-06-7, Bleomycin 15663-27-1, Cisplatin  
20830-81-3, Daunorubicin 23214-92-8, Doxorubicin 24305-27-9, TSH  
releasing hormone 25316-40-9, Adriamycin 33069-62-4, Taxol  
41575-94-4, Carboplatin 51110-01-1, Somatostatin 60118-07-2, Endorphin  
62229-50-9, Urogastrone 81627-83-0, Macrophage colony stimulating factor  
83869-56-1, Granulocyte macrophage colony stimulating factor  
114977-28-5, Taxotere 143011-72-7, Granulocyte colony stimulating factor  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thermosensitive biodegradable polymers based on poly(ether-ester)  
block copolymers)

IT 107596-21-4P 112143-11-0P 168399-10-8P  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
study); PREP (Preparation); USES (Uses)  
(triblock; thermosensitive biodegradable polymers based on  
poly(ether-ester) block copolymers)

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FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT  
10:08:52 ON 11 MAR 2005

|    |         |                  |                                  |
|----|---------|------------------|----------------------------------|
| L1 | 3460    | S                | (ANTIGEN BINDING SITE)           |
| L2 | 0       | S                | (COMPLEMENTARY DETERMINING SEG?) |
| L3 | 2       | S                | (COMPLEMENTARY DETERMINING SEG?) |
| L4 | 0       | S                | L1 AND L2                        |
| L5 | 2376516 | S                | ANTIBOD?                         |
| L6 | 93      | S                | L5 AND (180 DEGREE)              |
| L7 | 13825   | S                | L5 AND (HYDROPHOBIC?)            |
| L8 | 3       | S                | L6 AND L7                        |
| L9 | 3       | DUPLICATE REMOVE | L8 (0 DUPLICATES REMOVED)        |

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(FILE 'HOME' ENTERED AT 10:08:29 ON 11 MAR 2005)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, CANCERLIT, JAPIO' ENTERED AT  
10:08:52 ON 11 MAR 2005

L1 3460 S (ANTIGEN BINDING SITE)  
L2 0 S (COMPLEMENTARY DETERMING SEG?)  
L3 2 S (COMPLEMENTARY DETERMINING SEG?)  
L4 0 S L1 AND L2  
L5 2376516 S ANTIBOD?  
L6 93 S L5 AND (180 DEGREE)  
L7 13825 S L5 AND (HYDROPHOBIC?)  
L8 3 S L6 AND L7  
L9 3 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)

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